

Alaska Department  
of Environmental Conservation

# Statewide Hazardous Material Response

Developing a coordinated and effective response  
capability for hazardous-material releases in Alaska



***Prevention and Emergency Response Program***

## Hazardous Material (Hazmat) – What is it?

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“Hazmat” is the common term used to describe hazardous substances - those which pose a threat to safety, human health and the environment. Hazmat releases demand immediate attention because of this threat. Hazardous materials are characterized as HS (hazardous substances) or EHS (extremely hazardous substances). While all hazardous substances can present problems when spilled, those classified as EHS are of primary concern. These substances, such as chlorine and ammonia, pose an acute inhalable toxic threat to humans.



The U.S. Environmental Protection Agency (EPA) has classified over 300 substances as EHS. Approximately 20 of these chemicals are commonly used in Alaska. The map on the following page shows the location of major EHS-handling facilities throughout the State.

The Alaska Department of Environmental Conservation (DEC) is required by law to respond to releases of hazardous substances and ensure protection of the public health and welfare, and the environment. This includes ensuring the containment and cleanup of the released material and correction of the problem.

## Statewide Hazmat Response – Goals

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DEC’s statewide hazmat response planning is intended to better protect public health and the environment from the effects of hazmat releases by:

- Establishing an in-state hazmat response capability that will facilitate rapid response to a Level A or Level B incident anywhere in Alaska.
- Developing, maintaining and enhancing existing hazmat offensive and defensive response capabilities at the local level.
- Developing and maintaining effective response strategies and cooperative agreements to integrate local hazmat response capability into the State’s overall response network.



## Hazmat – How Do You Protect Responders?

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Response to a hazmat release requires specialized training and equipment. Responders to hazmat spills need to be protected from dangerous chemicals. Protective clothing, respirators or self-contained breathing apparatus may be required. The level of protection needed corresponds to the nature of the release and the potential health threat from the substance. There are four levels of protection for a hazmat responder. **Level A** provides the greatest level of respiratory, skin, and eye protection, including a fully-encapsulating suit and self-contained



breathing apparatus (SCBA). **Level B** also provides SCBA and chemical-resistant clothing. **Level C** provides a respirator and chemical-resistant clothing, while **Level D** provides coveralls without respiratory protection and is used for responses to the least harmful substances.

A Level A hazmat team may consist of up to eight people with associated response gear, and may require considerable communications and other logistical support. The team is designed to take "offensive" action, such as entering the "hot zone" to stop or contain the release. Depending upon the nature of the incident, "defensive" action, such as establishing a safe perimeter and evacuating those at risk from the release, may be the preferred response option.

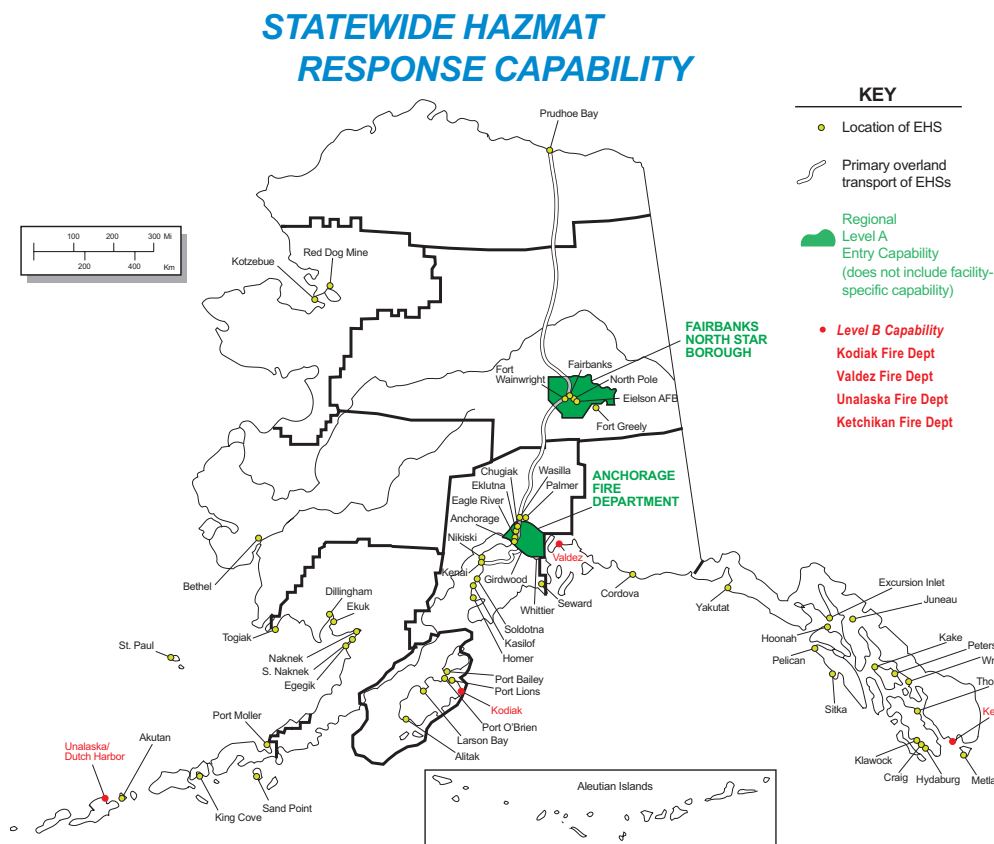
Incidents requiring Level A or B gear are of primary concern since they pose the most significant threat to public health and welfare. DEC's efforts are focused on developing and enhancing the capability to respond to such incidents in Alaska.

## Hazmat Response – What Has Been Done?

### 1. Identification of the Hazards in Alaska

In order to assess the scope of the threat, DEC completed a Statewide Hazards Analysis in May 1995 which identified hazmat risks throughout the State. The study found that of those substances classified as EHS, those present in Alaska in the greatest amounts are hydrogen-sulfide gas, anhydrous ammonia, sulfuric acid, and chlorine gas. These chemicals are used in or associated with a variety of industrial operations.

or associated with a variety of industrial operations, including fish processing, water and wastewater disinfection, and oil production.



## 2. Identification of Existing Hazmat Response Capability

DEC completed an in-state Hazmat Response Capability Assessment in January 1996 to determine the extent and availability of hazmat response in Alaska. The study highlighted a significant shortfall in Level A and Level B hazmat response capability within the State.

Fairbanks and Anchorage possess Level A hazmat entry teams (the Fairbanks North Star Borough Hazmat Team and the Anchorage Fire Department). In addition, industry and defense installations have some limited capability to handle their own releases. The U.S. Coast Guard Pacific Strike Team, based in California, is the nearest federal on-call emergency response asset. Level A/B capability is limited because the specialized training and equipment can only be maintained by larger response organizations.

## Planning a Statewide Hazmat Response Capability

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In order to develop an in-state Level A/B hazmat response capability, DEC assembled and continues to coordinate the efforts of two work groups:

The *Statewide Hazmat Response Work Group* is comprised of representatives from DEC, EPA, and hazmat team leaders from Fairbanks and Anchorage. This group is working to develop an in-state Level A/B hazmat response capability that will be on call to respond to releases anywhere within the State. The work group is pursuing a “core team” approach, which would build on the present capabilities of the Fairbanks and Anchorage hazmat team to enable them to respond outside their present jurisdictions and throughout Alaska.

The *Southeast Hazmat Response Work Group* is comprised of representatives from DEC, the U.S. Coast Guard, and local fire departments in Southeast Alaska. This group is working to develop hazmat response strategies for Southeast Alaska. This area lacks a core team upon which a Level A/B hazmat response capability can be built. For this reason the work group is pursuing strategies for the development of an in-region defensive response capability, with backup from the existing hazmat teams outside the region. The strategy developed for Southeast Alaska will likely be used in other remote areas of the State.

## Implementing a Statewide Hazmat Response

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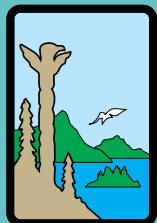
### **Community Spill Response Agreements**

DEC has executed a Community Spill Response Agreement (CSRA) with the Fairbanks North Star Borough and is negotiating a similar agreement with the Municipality of Anchorage. These agreements will allow DEC's On-Scene Coordinator to request activation of the local hazmat response team in the event of an emergency within or outside the team's area of jurisdiction and provide reimbursement for costs incurred as a result of the response.

### **Building Local Hazmat Response Capability**

DEC has Community Spill Response Agreements with over fifteen communities around the State and the number is growing. The expanding partnership between DEC and local communities maximizes joint use of limited response resources while minimizing duplication of effort. Working with the hazmat workgroups and through response agreements with individual communities, these tasks are now being addressed:

- Purchase of new and replacement equipment and training for the Anchorage and Fairbanks hazmat teams.
- Development of response strategies to allow the existing in-state teams to respond to hazmat releases anywhere within the State.
- Development of a defensive hazmat response strategy for Southeast Alaska and related training and equipment purchases.
- Development of standardized statewide hazmat response protocols.



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